



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,475	04/20/2006	Sebastijan Bach	2003DE117	5841

25255 7590 08/22/2008
CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
4000 MONROE ROAD
CHARLOTTE, NC 28205

EXAMINER

CHEUNG, WILLIAM K

ART UNIT	PAPER NUMBER
----------	--------------

1796

MAIL DATE	DELIVERY MODE
-----------	---------------

08/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,475	Applicant(s) BACH ET AL.	
	Examiner WILLIAM K. CHEUNG	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>052008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner acknowledges the argument filed May 21, 2008. Claims 6, 8 have been cancelled. Claims 1-5, 7, 9-13 are pending.

2. In view of the amendment filed November 19, 2007, the rejection of 1-7, 9-13 under 35 U.S.C. 112, first paragraph, is withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1796

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-5, 7, 9-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hohner (US 5,998,547) for the reasons adequately set forth from paragraph 8 of the office action of January 4, 2008.

*The invention of claims 1-5, 7, 9, 12, 13 relates to a **hotmelt adhesive** comprising between **0.1 and 100% by weight of at least one polyolefin wax** consisting of a **homopolymer of propylene**, or a **copolymer of propylene** and **another olefin** selected from the group consisting of **ethylene**, a **branched or unbranched 1-alkene having 4 to 20 carbon atoms**, and mixtures thereof, or a **copolymer of ethylene and a branched or unbranched 1-alkene having 4 to 20 carbon atoms** prepared using a **metallocene catalyst** and having a **dropping point or ring & ball softening point of between 80 and 165°C** and a **melt viscosity**, measured at a temperature 10°C above the dropping or softening point, of **not more than 40 000 mPa.s.**, wherein the at least one polyolefin wax is **without polar modification**.*

*The invention of claim 10 relates to a **hotmelt adhesive** containing between **0.1 and 100% by weight of polyolefin wax** consisting of a **homopolymer of propylene** or a **copolymer of propylene** and **another olefin** selected from the group consisting of **ethylene**, a **branched or unbranched 1-alkene having 4 to 20 carbon atoms**, and mixtures thereof, or a **copolymer of ethylene and a branched or unbranched 1-alkene having 4 to 20 carbon atoms** prepared using **metallocene catalysts** and having a **dropping point or ring & ball softening point of between 80 and 185°C** and a **melt viscosity**, measured at a temperature 10°C above the dropping or softening point, of not more than **40 000 mPa.s.**, wherein the polyolefin waxes are **without polar modification**.*

*The invention of claim 11 relates to a **hotmelt adhesive** comprising between **0.1 and 100% by weight of a polyolefin wax** consisting of a **homopolymer of propylene, or a copolymer of propylene and another olefin** selected from the group consisting of **ethylene, a branched or unbranched 1-alkene having 4 to 20 carbon atoms**, and mixtures thereof, or a **copolymer of ethylene and a branched or unbranched 1-alkene having 4 to 20 carbon atoms** prepared using **metallocene catalysts** and having a **dropping point or ring & ball softening point of between 80 and 165°C** and a **melt viscosity**, measured at a temperature 10°C above the dropping or softening point, of not more than **40 000 mPa.s.**, wherein the polyolefin wax is **without polar modification**.*

Hohner (col. 2, line 15-51) discloses composition comprising starting polypropylene waxes (without polar modification) prepared using metallocene catalysts having the dropping point or ring & ball softening point and the melt viscosity properties that significantly overlap the dropping point or ring & ball softening point and the melt viscosity properties as claimed.

15 The synthesis of the unmodified, i.e. nonpolar, starting waxes by means of catalysts of the Ziegler or metallocene type is known from numerous documents. Thus, for example, DE-A-2329641 discloses a process by means of which α -olefins can be polymerized in a direct polymeriza-
20 tion reaction using Ziegler catalysts to give homopolymer or copolymer waxes. DE-A-3148229 describes the preparation of highly crystalline polypropylene waxes by polymerization likewise using titanium-containing catalysts; the same in EP-A480190. In addition, propylene homopolymer and
25 copolymer waxes are also obtainable using metallocene catalysts (e.g. EP-A-321 852, EP-A-384 264, EP-A416 566).

Suitable starting materials are low molecular weight propylene homopolymers prepared using Ziegler or metal-
30 locene catalysts and having melt viscosities, measured at 170° C., of from 20 to 50,000 mPa.s. The softening points (ring/ball) of such waxes are generally from 90 to 165° C., preferably from 90 to 145° C. Suitable waxes are both highly crystalline products having a high proportion of isotactic or
35 syndiotactic structures and those having a low crystallinity and a predominantly atactic structure. The degree of crystallinity of propylene homopolymers can be varied within wide limits in a known manner by appropriate selection of the catalyst used for the polymerization and by means of the
40 polymerization conditions. This applies particularly when using metallocene catalyst systems.

Further suitable starting materials are propylene copoly-
mer waxes which are prepared using Ziegler or metallocene catalysts and comprise not only propylene but also varying
45 amounts of other olefins, for example ethylene or higher α -olefins having a chain length range of C_4-C_{30} , where the comonomer units can be distributed either predominantly randomly or predominantly in blocks between isotactic, syndiotactic or partially atactic polypropylene sequences.
50 Such waxes have softening points (ring/ball) of generally from about 90 to 165° C., preferably from 90 to 145° C.

Hohner (col. 8, claims 13-16) clearly claims using the disclosed composition as adhesives. In view of substantially identical material compositions, and dropping point or ring & ball softening point of between 80 and 165°C properties, the examiner has a reasonable basis to believe that the claimed "measured at a temperature 10°C above the dropping or softening point" and the molecular weight properties are inherently possessed in Hohner. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Regarding claim 9, Hohner (col. 3, line 35-46) clearly discloses the incorporation of the typical additives or auxiliary into a hotmelt adhesive, such as the hotmelt adhesive disclosed.

Regarding claims 12-13, Hohner (col. 3, line 43-46; col. 6, claims 5- 7; col. 7, claim 8; col. 8, claims 13-16) clearly disclose various substrates to be applied with the disclosed hot melt adhesives. Although the disclosed substrates are intended for hot melt adhesives that have been polar modified, nevertheless, Hohner clearly indicates the desirability to use the unmodified hot melt polypropylene adhesives for the various substrates disclosed. It would not be difficult for one of ordinary skill in art to recognize the said desired adhesive applications after reading the disclosure to Hohner.

Applicants must recognize that whether or not Hohner teaches the use unmodified polypropylene waxes to be used as a hotmelt adhesive, Hohner has adequately disclosed the unmodified polypropylene waxes which is identical to the one as claimed. Therefore, the examiner has a reasonable basis to believe that the polypropylene waxes disclosed in Hohner is capable to be used as a hotmelt adhesive in view of the substantially identical composition disclosed and as claimed. The rejection set forth is proper.

Response to Arguments

7. Applicant's arguments filed May 21, 2008 have been fully considered but they are not persuasive. Applicants continue to argue that Hohner teaches polypropylene waxes

Art Unit: 1796

modified with polar groups. Therefore, applicants believe that Hohner is inadequate to be used as a reference for the rejection set forth. However, the examiner disagrees.

Applicants must recognize that the claimed invention is a hotmelt adhesive characterized by a composition comprising between 0.1 and 100% by weight of at least one polyolefin wax without polar modification. According to the composition teachings in Hohner, Hohner (col. 2, line 15-51) clearly discloses composition comprising starting materials such as polypropylene waxes that are without polar modification, prepared using metallocene catalysts having the dropping point or ring & ball softening point and the melt viscosity properties that significantly overlap the dropping point or ring & ball softening point and the melt viscosity properties as claimed. Although Hohner relates to the modification of polypropylene waxes disclosed, applicants must recognize that the starting polypropylene waxes are compositionally identical to the adhesive invention as claimed. In view of the substantially identical composition as claimed and the composition disclosed in the starting materials of Hohner, the examiner has a reasonable basis that the starting materials (polypropylene waxes) as taught in Hohner inherently possessed the capability to be used as a hotmelt adhesive. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William K Cheung/
Primary Examiner, Art Unit 1796

William K. Cheung, Ph. D.
Primary Examiner
August 16, 2008